WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

an input unit for successively receiving as input a first image signal representing each pixel;

a thresholding unit for performing thresholding on said inputted first image signal using a prescribed threshold value; and

a distributing unit for distributing a value used in the thresholding in a succeeding pixel, wherein

said thresholding unit performs thresholding based on the value distributed by said distributing unit and on a specific value determined for each pixel, and

said distributing unit calculates a value to be distributed to the succeeding pixel based on an input signal and an output signal of said thresholding unit and on the specific value determined for each pixel.

2. The image processing apparatus according to claim 1, wherein

said distributing unit distributes a value obtained by adding the specific value determined for each pixel to a result of operation based on a threshold value used in said thresholding unit and on an output signal from said thresholding unit, and

said thresholding unit generates a threshold value based on a result obtained by subtracting the specific value determined for each pixel from the value distributed by said distributing unit, and performs thresholding.

3. The image processing apparatus according to claim 1, wherein

said distributing unit distributes a value obtained by subtracting the specific value determined for each pixel from a result of operation based on the input signal and the output signal of said thresholding unit, and

said thresholding unit performs thresholding after correction of the first image signal input based on a result obtained by adding the specific value determined for each pixel to the value distributed by said distributing unit.

4. The image processing apparatus according to claim 1, wherein

said distributing unit distributes a value obtained by subtracting the specific value determined for each pixel from a result of operation based on the input signal and the output signal of said thresholding unit,

said input unit successively receives as input a result obtained by subtracting the specific value determined for each pixel from the first image signal, and

said thresholding unit performs thresholding after correction of a value inputted by said input unit based on the value distributed by said distributing unit.

5. The image processing apparatus according to claim 1, wherein

the specific value determined for each pixel is a value obtained by multiplying the first image signal by a prescribed coefficient.

6. The image processing apparatus according to claim 1, further comprising:

a pattern generating unit for generating a pattern for each pixel, wherein

the specific value determined for each pixel is a value obtained by multiplying a value generated by said pattern generating unit by a prescribed coefficient.

7. The image processing apparatus according to claim 5, further comprising:

a coefficient setting unit for setting said prescribed coefficient at will.

8. The image processing apparatus according to claim 6, further comprising:

a coefficient setting unit for setting said prescribed coefficient at will.

9. An image processing method, comprising the steps of:

successively inputting a first image signal representing each pixel;

performing thresholding on said inputted first image signal using a prescribed threshold value; and

distributing a value used in the thresholding in a succeeding pixel, wherein

said thresholding step is done based on the value distributed by said distributing unit and on a specific value determined for each pixel, and

said distributing step calculates a value to be distributed to the succeeding pixel based on an input signal and an output signal of said thresholding step and on the specific value determined for each pixel.

10. The image processing method according to claim 9, wherein

said distributing step distributes a value obtained by adding the specific value determined for each pixel to a result of operation based on a threshold value used in said thresholding step and on an output signal from said thresholding step, and

said thresholding step generates a threshold value based on a result obtained by subtracting the specific value determined for each pixel from the value distributed by said distributing step, and performs thresholding.

11. The image processing method according to claim 9, wherein

said distributing step distributes a value obtained by subtracting the specific value determined for each pixel from a result of operation based on the input signal and the output signal of said thresholding step, and

said thresholding step performs thresholding after correction of the first image signal input based on a result obtained by adding the specific value determined for each pixel to the value distributed by said distributing step.